WHAT IS CLAIMED IS:

1. A method of screening for enzyme stereoselectivity, comprising:

(a) providing a plurality of substrate molecules,

wherein the plurality comprises two or more substrate molecule types,

wherein at least one of the substrate molecule types has one or more leaving groups,

wherein at least one of the leaving groups is isotopically labeled;

(b) contacting at least one enzyme with the plurality of substrate molecules,

wherein the enzyme converts one or more of the substrate molecules to two or more products,

(c) quantifying the two or more products mass spectrometrically, wherein at least one of the quantified products comprises the isotopically labeled leaving group,

thereby screening for enzyme stereoselectivity.

2. The method of claim 1, wherein each substrate molecule type comprises a leaving group.

3. The method of claim 1, wherein the enzyme is a hydrolase.

4. The method of claim 1, wherein at least one of the products comprises three or more carbon atoms.

5. The method of claim 4, wherein the isotopically labeled leaving group comprises three or more carbon atoms.

6. The method of claim 4, wherein at least one of the products comprises four or more carbon atoms.

7. The method of claim 6, wherein the isotopically labeled leaving group comprises four or more carbon atoms.

8. The method of claim 1, wherein the isotopic label is selected from the group consisting of ^{2}H, ^{3}H, ^{7}Li, ^{13}C, ^{14}C, ^{11}B, ^{19}F, ^{31}P, ^{32}P, ^{15}N, ^{17}O, and ^{18}O.

9. The method of claim 8, wherein the isotopic label is ^{2}H.

10. The method of claim 1, wherein the products are quantified after less than about 10% conversion of substrate(s) to product(s).

11. The method of claim 10, wherein the products are quantified after less than about 5% conversion of substrate(s) to product(s).

12. The method of claim 11, wherein the products are quantified after less than about 3% conversion of substrate(s) to product(s).

13. The method of claim 1, wherein the plurality of substrate molecules comprises *pseudo*-enantiomers.

14. The method of claim 1, wherein the plurality of substrate molecules comprises *pseudo*-diastereomers.

15. The method of claim 1, wherein the plurality of substrate molecules comprises *pseudo*-meso compounds.

16. The method of claim 1, wherein the plurality of substrate molecules comprises esters.

17. The method of claim 1, wherein the plurality of substrate molecules comprises a *pseudo*-racemate.

18. The method of claim 1, wherein step (b) is conducted on a cell growth plate.

19. The method of claim 1, wherein the at least one enzyme is an enzyme library.

20. The method of claim 1, further comprising separating the products prior to application of mass spectrometry by a method selected from the group consisting of liquid chromatography, gas chromatography, and capillary zone electrophoresis.

21. A method of screening for enzyme stereoselectivity, comprising:

(a) providing a *pseudo-meso* substrate molecule comprising at least one isotopically labeled leaving group;

(b) contacting at least one enzyme with the *pseudo-meso* substrate molecule, wherein the enzyme converts the *pseudo-meso* substrate molecule to two or more products;

(c) quantifying the two or more products mass spectrometrically, wherein at least one of the quantified products comprises the isotopically labeled leaving group, thereby screening for enzyme stereoselectivity.

22. The method of claim 21, wherein the enzyme is a hydrolase.

23. The method of claim 21, wherein at least one of the products comprises three or more carbon atoms.

24. The method of claim 23, wherein the isotopically labeled leaving group comprises three or more carbon atoms.

25. The method of claim 23, wherein at least one of the products comprises four or more carbon atoms.

26. The method of claim 25, wherein the isotopically labeled leaving group comprises four or more carbon atoms.

27. The method of claim 26, wherein the products are quantified after less than about 10% conversion of substrate to products.

28. The method of claim 27, wherein the products are quantified after less than about 5% conversion of substrate to products.

30. The method of claim 21, further comprising separating the products prior to application of mass spectrometry by a method selected from the group consisting of liquid chromatography, gas chromatography, and capillary zone electrophoresis.